



The Halifax Amateur Radio Club

REFLECTOR

PO BOX 663
HALIFAX NS
B3J 2T3

January 2004 Volume 65 Number 1

club web site : www.halifax-arc.org



Congratulations to the New H.A.R.C. Executive



HARC Club Station phone number - 490-6421

See the HARC Web site at: <http://www.halifax-arc.org>

Our executive and committees.

Position Name & Call Sign	Phone #	E-Mail
President - Bill Elliott, VE1MR	865-8567	ve1mr@rac.ca
First V.P. - Fraser MacDougall VE1WO	865-4198	ve1wo@rac.ca
2nd V.P. - Rick Gardiner, VE1RGG		ve1rgg@rac.ca
Secretary - Howard Dickson, VE1DHD	823-2024	ve1dhd@rac.ca
Treasurer - John Goodwin, VE1CDD	865-5731	ve1cdd@rac.ca
Member at Large, Tom Caithness, VE1GTC	477-7081	tom.caithness@ns.sympatico.ca
Club Station Mgr. - Pat Kavanaugh, VE1PHK	479-2530	iceman@ns.sympatico.ca
Past President - Dick Grantham, VE1AI	434-8046	ve1ai@rac.ca

Committees/Offices/Prime Contacts

Public Relations: Wayne Harasimovitch, VE1WPH	832-3660	ve1wph@rac.ca
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Web page - Rob Ewert, VE1KS,	826-1705	ewertr@hfx.eastlink.ca
Basic ham course Scott Wood, VE1QD,	823-2761	ve1qd@rac.ca
Callbook 2004 Editor - Howard Dickson, VE1DHD	823-2024	ve1dhd@rac.ca
EMO Trailer Assembly coord - David Musgrave, VE1EDA	435-4333	ve1eda@rac.ca
Flea market 2004 Chair'man - NEEDED		
Field Day coordinator - NEEDED		
RAC Asst Director - Wayne Marchand, VE1WJM,	860-1580	ve1wjm@rac.ca
NSARA Director - Barry Diggins, VE1TRI	861-3719	ve1tri@rac.ca
Frequency coordinator for Nova Scotia - Bev Reynolds, VE1TL		

GENERAL INFORMATION

TAKE-15 NET:

Sunday evenings at 8:30 PM on
VE1PSR - 147.270 MHz +

CLUB REPEATERS:

VE1PSR - 147.270 MHz +
VE1HNS - 146.940 MHz -

PACKET:

VE1NSD - 145.050 MHz LAN NODE
VE1BBS - Local packet BBS
accessible through the LAN

**Deadline for submissions to
the February Reflector is
Saturday, February 7, 2004**

NOTICE

The Reflector will now be available
in PDF format. Those wishing to
save the club printing and postage
can request to receive it by E-mail
and print it off on their own printer.
Send request to Lynn Bowser at:
ve1ent@rac.ca

The **General Meeting** of the
Halifax Amateur Radio Club
will take place Wednesday,
January 21, 2004 at 1930 hours
(7:30 PM), at the former
Bloomfield School building
(corner of Almon and Agricola
streets). The meeting will be
held in the Multi-Purpose Room.


Guests are welcome.

Notice of motion

There will be a motion to approve
the 2004 budget. This will require 2
votes with the second vote at the
February meeting.

Take-15 Net Controllers

NOTE: There have been some
changes.

This will be the rotation. 
If you cannot take the net
on your particular evening
get in touch with one of the others
and trade places with them. If I
have left any one off the list, or
you want to join, please let Bill
Elliott, VE1MR, know.

Jan. 11	Darryl	VE1DOH
Jan. 18	Charles	VE1MCR
Jan. 25	Chris	VA1CDB
Feb. 1	Herb	VE1HX
Feb. 8	Tom	VE1GTC
Feb. 15	Doug	VE1LDL
Feb. 22	Larry	VA1LW

NSARA executive for 2003-2004:

President - Tom Cohoon, VE1TA
1st VP - Jim Hannon, VE1AFH
Treasurer - Shirley Cohoon,
VE1JFG
Secretary - Bruce Harvey, VE1II

RAC's web site is www.rac.ca

**MID WINTER
AMATEUR
BREAKFAST**

When: 09:00

AM SATURDAY,

FEBRUARY 21, 2004

Where: HALIFAX STEAK &
STEIN corner of Robie & Young
Streets, Halifax

Reservations not required, but contact VE1ENT, Lynn, with intentions and rough numbers in order that we set up enough tables.

E-mail to ve1ent@rac.ca
or phone (902)-865-8567

Regular Steak & Stein breakfast menu in effect, wide variety of choices at reasonable prices... Individual bills will be provided

Maritime Callbook 2004

Howard (VE1DHD) our 2004 Callbook Editor/Project Manager urges members to become involved in the project by contacting him directly by e-mail ve1dhd@rac.ca
Or phone 823-2024

HELP!

The club needs a number of people to take on occasional small jobs. Sometimes all that is required is a phone call or two, other times arranging to pick up and deliver some thing. What we need is for some one to take on a small task and see it through from beginning to the end. If we have a number of people available then no one person has to do a lot, but it will relieve the executive of many small tasks that have often got lost or delayed due to larger tasks taking over.

Often an executive member will start a task and if it does not move quickly and smoothly then it may bog down when they cannot follow up and it eventually gets forgotten or pushed aside.

RAC Bulletin 03-030 -

**RAC Radio Amateur of the
Year Award for 2003**

From a number of nominees, the RAC Board of Directors has unanimously selected Bill Elliott, VE1MR, as recipient of the RAC Radio Amateur of the Year Award for 2003. An engraved silver tray was presented to VE1MR by Atlantic Regional Director David Nimmo, VE1NN, and RAC President Bill Gillis, VE1WG, at the Halifax Amateur Radio Club's annual Christmas Dinner Meeting on December 10, 2003.

Currently President of Halifax Amateur Radio Club, Bill Elliott, VE1MR, has been a Radio Amateur and a member of RAC and its predecessor national organizations for over twenty years. Through that time, Bill has consistently and generously donated his considerable technical & organizational skills to significantly promoting excellence in Amateur Radio and facilitating its public service role.

**Puzzler - Do You Know?**

How old is the oldest known active ham?
Answer on page 8

**Are you up to date with your
HARC membership dues?**

Yearly rates are as follows:

Full = \$25 Associate = \$15
Family (2 members) = \$35 + \$10
for each additional family member
at same address (only 1 newsletter)

*Pilot to passengers after landing:
"Thank you for flying Delta Business Express. We hope you enjoyed giving us the business as much as we enjoyed taking you for a ride."*

From the ARRL Letter, Vol. 22, No. 50,
December 19, 2003

RAC 2004-2005 executive officers:

The Radio Amateurs of Canada <<http://www.rac.ca>> Board of Directors has announced the organization's executive officers for the 2004-2005 term. The board elected Daniel Lamoureux, VE2KA (ex-VE2ZDL), to succeed William Gillis, VE1WG, as RAC's president. Gillis decided not to run for re-election. Lamoureux outpolled Robert Burns, VE1VCK, the only other candidate for RAC president, by a 4-3 vote. Lamoureux is the longtime RAC Director from Quebec and has been an RAC delegate to the past two International Amateur Radio Union <<http://www.iaru.org>> Region 2 Conferences. In 2001 he qualified to teach the United States Telecommunications Training Institute Amateur Radio Administration course (see <<http://www.arrl.org/news/stories/2001/10/01/1/>>). He also has been active with the Amateur Radio on the International Space Station (ARISS) program.

<<http://www.rac.ca/ariss>>

Other executive officers elected without opposition include Robert Nash, VE3KZ, first vice president; James Dean, VE3IQ, vice president regulatory affairs; Pierre Mainville, VA3PM, vice president field services and international affairs; and Noel Marcil, VE2BR, secretary. The RAC says there were no eligible nominees for the position of treasurer, which is declared vacant as of January 1.

The **Club station** is a good space for ham radio activities but **please reserve your date & time** with Station Manager Pat Kavanaugh, VE1PHK by Telephone 479-2530 or E-mail iceman@ns.sympatico.ca
This is to prevent the disappointment of arriving at the Club Station and finding someone else has booked it for the same time you wanted to use it. **So booking with Pat is a must!!**

To participate in GOTA (Guides on the Air) contact Pat, HARC's Station Manager

PRESIDENT'S MESSAGE January 2004

Greeting for a new year, I hope you and your families had a good Christmas and New Year. I am looking forward to a good year for the Halifax Amateur Radio Club. With your help this can be a great year, there are lots of activities planned and hopefully you the members will come up with many more. The executive is here to take care of the day to day operation of the club but it is up to the membership to let us know what needs to happen and help out in making it happen.

There is usually a list of activities that the club takes part in but unless some one comes forward to organize or coordinate them they will not happen. Please look over the upcoming activities and see if you can spare some time to help out. Two upcoming major events needing help are the annual flea market and the ARRL Field Day.

We have some people in place for the flea market but more will be needed to help out on the day. We need a chairman for Field Day, this is always a good time and we are also competitive while having fun, we need some one to coordinate this event. There are always lots of people to do the many tasks involved with Field Day but there needs to be the one person to make sure it all happens according to plan.

The other area where we need ideas is club meeting speakers. What would you like to hear about, what would interest you? If you have ideas or contacts, please let Rick, VE1RGG know and he will try to arrange for entertaining and informative speakers.

If there is some thing you think the club should be doing or trying, please let an executive member know. If you see some thing that needs to be done, do it!! If you can't do it let some one else know. I am hoping the special interest groups from last year will restart this year and perhaps others as required. If you have a special interest, share it with others and perhaps start a new group.

Remember, our club is perhaps the most dynamic of any in the Maritimes or perhaps Eastern Canada, this is because of the energy of it's members.

73 - Bill Elliott, VE1MR

Special Interest Group

A Satellite Interest Group was formed last year. We had a great year and established a satellite operating position in the club room. A number of the members made their first satellite contact from this new operating position.

We did not hold meetings during the summer months. It is now time to decide whether we should start holding meetings this year.

Please contact me with your comments.

73 John VE1CDD

Entertaining the Kid's

Kids looking for something to do? Baby sitting the grand kids? Here's a toy that leaves no mess on the floor, requires no cleaning up after-ward and leaves nothing to step/trip on while making that late night trip to the WC in your bare feet. It's a program that allows them to use Lego like blocks to build just about anything you can dream up. You can download the freeware program at <http://user.tninet.se/~hbb828t/proglego.htm>.

73 John VE1CDD

From the NASA Science News for Dec. 29, 2003

Earth's magnetic north pole is racing away from North America. Compass needles in Africa are drifting about 1 degree per decade. Globally the magnetic field has weakened 10% since the 19th century. What's happening to our planet's magnetic field? Researchers are seeking the answer. In this story we see what they've learned in recent years.

FULL STORY at

http://science.nasa.gov/headlines/y2003/29dec_magneticfield.htm?list969122

Check out the RSS feed at

<http://science.nasa.gov/rss.xml!>

Home page: <http://science.nasa.gov>

www.rac.ca RAC's web site has URLs to swap shops all over the country

Cold season tip: For icy doorsteps in freezing temperatures: get warm water and put Dawn dish washing liquid in it. Pour it all over the steps. They won't refreeze.

I ran across this "tip" and even bought a bottle of the dish washing liquid but have not yet gotten around to trying it out. If anyone does try it I'd be interested in hearing about the results. -ed.

For information about automatic delivery of RAC Bulletins by the RAC robot mailing list visit:

<http://rac.eton.ca/racbullemail.htm>

An Emergency Preparedness Item

From a report prepared by: Ken Halcrow, CFARS Assistant Manager
Courtesy of Terry, VE1TRB

Note: CFARS affiliate operators are ham operators who are assigned call signs which are used only on assigned CFARS frequencies, outside of the amateur bands

CFARS FALLEX 2003 (Oct.4 to Oct.6) was the 4th in a series of key CFARS HF communications exercises. The intent is to continue to conduct 2 communications exercises per year in May/June (SPRINGEX) and Sept./Oct. (FALLEX).

Purpose of CFARS FALLEX 2003 was to conduct a nation wide High Frequency (HF) radio communication exercise designed to exercise all elements of the CFARS National and Regional components and to familiarize components of the Communications Reserve and selected government departments with the operating procedures & capabilities of CFARS.

This exercise included Federal and Provincial organizations concerned with Emergency Preparedness, the OCIPEP, the GEOCC in Ottawa and Regional OCIPEP/EMO offices in Quebec City and Victoria. A representative from the Transport Canada Situation Centre participated in the exercise.

The exercise was based on the premise that the regions would be initiating traffic specific to their area in a real emergency. Individual members and Regional Net Controllers were free to initiate local events during exercise play.

A CFARS NNCS (National Net Control Station) was established to handle simulated emergency exercise traffic from/to Federal authorities in Ottawa. The 5 Regional Net Control Station nets were established to pass regional traffic from/to provincial authorities to the National Net. The

regions generated traffic based on their region scenario and passed the traffic to Region Net Control for forwarding by various communication platforms to NNCS.

37 callsigns (Stations) which participated in the exercise were either CFARS Affiliate members, Military Club stations, Military Reserve Deployed Detachments or OCIPEP/EMO stations. Participation was as follows: Arctic Region 1, Pacific Region 5, Atlantic Region 6, Prairie Region 4, Central Region 16, OCIPEP/EMO 2, 763 Communications Regiment 3. The OCIPEP Clover network was actively relaying traffic on Amateur Band frequencies.

CFARS Affiliate Members:

Prairie Region NCS' central location in Winnipeg and the local CFARS members provided the critical transcontinental HF link for the relay of exercise traffic.

Central Region NCS Trenton was critical for Central Region relay to NNCS.

Pacific Region activities – the region set up a 3-way local net between affiliate members and OCIPEP. This was an efficient method as each station specialized in one aspect of the net. The CIW21 club station had the flexibility & the staff, CIW290 had the OCIPEP station with the Clover equipment and an interested OCIPEP staff for exercise message generation. CIW223 had the “big guns” & e-mail. Message traffic was handled using different communication platforms. A message received on VHF Packet was transferred to another computer then sent via an HF Digital mode, usually PSK31. Other traffic received on HF was transmitted by VHF or email.

CIW650 set up the WinLink HF to Internet e-mail system, (an effective method of message handling.)

CIW652 NNCS with the assis-

tance of CIW655 was able to connect via all modes in HF as well as ECHOLINK, IRLP and was able to conduct phone patches between Regional OCIPEP offices and Ottawa OCIPEP GEOCC.

763 (Ottawa) Communication Regiment continues to be a critical component of the exercise. 3 HF Light Communications Terminal (LCT) Detachments were deployed.

The Communication Reserve HF detachments were able to use the digital modes PSK31 and SSTV during the exercise for interoperability to not only operate in voice but to use the new sound card digital communication modes during domestic support operations.

Throughout the exercise contact by telephone, HF phone patch, SATCOM & e-mail was established with the OCIPEP GEOCC Duty Officers.

Recommendations/Comments

- Emergency Power - It is strongly recommended that all CFARS stations ensure that some form of emergency power is available immediately or very quickly.

- Phone Patching - was used throughout the exercise and proved that this is still a CFARS capability that is required. Every CFARS affiliate member should have a complete phone list of municipal, regional, and provincial emergency response organizations.

- Digital Capability - At a minimum the Regional and National NCS stations should have at least a computer data capability with software capable of MFSK16, PSK31, SSTV, RTTY, ECHOLINK, IRLP and a TNC capability for Packet, Pactor or Clover.

- Each individual CFARS member must keep his/her communications skills & communications equipment up to modern standards. Many members belong to local Amateur Radio Emergency Service and emergency response groups and are active in local VHF/UHF and HF nets. Exercise message preparation and message handling are skills that should be practiced constantly either through local emergency organizations or by participating in CFARS exercises.

Abbreviations: CFARS => *Canadian Forces Affiliated Radio Service*
OCIPEP => *Office of Critical Infrastructure Protection and Emergency Preparedness*
GEOCC => *Government Emergency Operations Coordination Centre*
SITREP => *Situation Report*

HI Folks,

6 weeks or so ago, I heard a rumour that a California company Corridor Systems, was proposing a BPL system that would work at 2.4 GHz.

I tracked down the designer who turned out to be a radio amateur, Glenn Elmore, N6GN. We had several e-mail exchanges in which I inquired about the nature of the technology used. He decided he could at least confirm the sort of thing he was doing, which made use of single conductor surface wave propagation on one of the power line cables.

I was familiar with the approach, since about 50 years ago, the NRC was working on a similar system for a microwave perimeter fence for security purposes.

*The story below was recently published on a web site called
tvtechnology.com.*

This system, if proven economically feasible, should provide very broadband transmission suitable for high speed Internet access, using the existing power distribution system, (including the high voltage lines) but which does not pose any threat whatever to amateur radio or other users of the RF spectrum.

Ken, VE3PU

New Technology May Alleviate BPL Interference Concerns

Users of the high frequency and VHF spectrum have been concerned that proposed broadband over power line (BPL) systems may render the spectrum unusable due to radiation from the power lines. The ARRL has a web page devoted to Broadband over power line and its impact on amateur radio. That page has a video showing the impact of BPL interference on HF communications. Broadcasters and government agencies are concerned because BPL radiation, including harmonics, have the potential to cause interference to VHF TV, FM radio and military and public safety communications in the HF and lower VHF spectrum.

It now appears there is a technology that will provide faster data rates (demonstrated up to 216 Mbps) than

the high frequency systems operating in the 1.7 to 80 MHz range and also eliminate interference to HF operations. The system, developed by Corridor Systems, uses microwave spectrum instead of HF frequencies. The press release Corridor Systems Announces Breakthrough Technology for Broadband Over Powerlines -- Demonstrates 216 Mbps over PG&E's medium-voltage grid said the technology can leverage existing low-cost 802.11 chipsets, achieving lower cost than competing BPL solutions. Latency, according to the company, is less than 500 microseconds and the 216 Mbps capacity allows simultaneous, bi-directional, and symmetrical end-to-end delivery.

Corridor Systems' technology uses the spectrum between 2 GHz and 20 GHz, avoiding the HF and VHF frequencies entirely. How can microwaves be transmitted over a wire?

Ham radio operators may remember a UHF/microwave transmission line system that used a single wire. This technology, referred to as G-line, used cone shaped launchers at each end of a single wire. DSLReports.com has a Forum on Urban Electrified Broadband that includes some comments on the technology. A comment from NOJCG agrees that the technology behind the Corridor Systems BPL technology is a variation of G-line. Indeed, the photo on the Corridor news page clearly shows the cone shaped launcher!

A description of the technique is available in the oral history interview with Milford Richey at The Cable Center. It shows that it is possible to couple microwaves onto a single wire for distances of 5 to 10 miles without running into interference problems. There are some blurry pictures of a G-line installation at www.emachine.com/tower.htm. G-Line - A 1955 Application of Scalar Technology says the name G-line came from its inventor, Dr. George Goubau. The web page describes articles in the April 1955 and April 1956 issues of "Radio & Television News Magazine" about G-line and includes a

drawing showing details of the launcher cone.

Corridor Systems sent an Open letter to the FCC regarding ARRL's opposition to BPL. In the letter, Glenn Elmore, Chief Technology Officer, who also holds Amateur Radio call sign N6GN, said, "Corridor Systems has demonstrated a BPL technology which is completely compatible with the Amateur Radio Service and, indeed, with all users of the HF-VHF spectrum, one which can be operated completely within Part 15 guidelines, is compatible with other services and is an excellent cohabitant of the public spectrum." During the 216 Mbps BPL test using 2.4 GHz and 5.3 GHz ISM/Part 15 spectrum, the letter said "Corridor Systems demonstrated normal system operation, maintaining high dynamic range, in spite of the presence of a high-level, 2.4 GHz fixed wireless transmitter located approximately 1/2 mile and within line-of-sight of the BPL system and sharing common spectrum."

Measurements at ground level directly under the power line used during the test showed a maximum radiated power level of less than -10 dBm, 20 dB less than the typical power level from 802.11 based wireless cards.

As expected with the frequencies used by this system, no signals were detected below 2 GHz. The letter describes two tests:

"Corridor Systems has tested and demonstrated simultaneous operation of its BPL technology and amateur radio HF communications. Utilizing a 100 watt, 7 MHz, 21 MHz and 28 MHz amateur SSB/CW transmitter connected to a dipole antenna located within 20 feet of an operating BPL system, there was not any evidence whatsoever of the operation of one system in the other. Amateur UHF communications at 446 MHz and at a 25-watt power level were similarly unaffected and in turn were not detected by the BPL system. Examination of the .1-30 MHz HF spectrum

(Continued on page 6)

Halifax Amateur Radio Club Minutes of the General Monthly Meeting of November 19, 2003.

The meeting was called to order at 1930 hrs Wednesday, November 19th 2003 by President Dick (VE1AI) with 27 members in attendance.

Executive in attendance:

Past-President Bill Elliott (VE1MR); President Dick Grantham (VE1AI); First Vice-President Fraser MacDougall (VE1WO); Second Vice-President Lynn Bowser (VE1ENT); Treasurer Jeremy Fowler (VE1JHF); Station Manager John Goodwin (VE1CDD), and Secretary Howard Dickson (VE1DHD).

Silent Keys: No silent keys reported.

Guests: KA6NQG Rick, who has recently moved to the Metro Halifax area. Ian George was introduced by his parents Sherry (VE1WST) and Dave (VE1AJP).

New Members: None introduced; Tom (VE1GTC) reported to the secretary that VA1TX Bob Jeffery has joined the Club.

Minutes of the October meeting: Approval of the minutes as published in the HARC Reflector was moved by Doug (VE1LDL) and seconded by Dave (VE1AJP). Motion carried.

Announcements: Betty (VE1BSW) reminded members of the Christmas Dinner on Wednesday December 10th. Details in the November Reflector.

The November meeting was suspended at 1935 and President Dick (VE1AI) passed the Chair over to Bob (VE1PQ), Chair of the Nominating Committee, to chair the 2003 Annual General Meeting of the Club. Minutes of the AGM can be found under a separate heading.

The November meeting for the HARC resumed at 2035 with VE1AI in the Chair.

Dick thanked Jeremy (VE1JHF) and John (VE1CDD) for their strong support and dedication in the roles of Treasurer and Station Manager respectively. He also thanked other

members of the Executive for their support over the past year.

Lynn (VE1ENT) reminded members that the annual HAM breakfast will take place on February 21st, Saturday, at the Steak and Stein on Young St. in Halifax.

Door Prize: The door prize for the evening was a "Flexi-Driver" and was won by Fraser (VE1WO).

50:50 Draw: The draw for the evening was worth \$17.00 and was won by Howard (VE1DHD).

RAC Report: Dave (VE1NN) provided a brief report on RAC activities, pointing out the importance of the Tower Review Discussions that are currently underway, chaired by Dr. Townsend at UNB. With respect to the recent CARAB meeting where RAC met for informal discussions with representatives of Industry Canada, some of the issues discussed related to the elimination of the Morse requirement in Canada, and possible changes to the Canadian Amateur Licensing Structure.

The meeting adjourned at 2105 on a motion from Bob (VE1PQ).

Respectfully submitted by:
Howard (VE1DHD) Secretary

Editor's comment: It will take some time for Ian Reuben George to be ready to write his basic amateur exam as he was only 3 weeks old when he attended (and slept through most of) this, his first HARC meeting.



(Continued from page 5)

with a quality communications receiver also revealed no evidence of the BPL system."

"Spectrum analysis has been utilized to examine the entire .01 MHz to 2000 MHz spectrum present at the terminals of several types of antennas immediately adjacent to a BPL system which was operating normally. No BPL related signals at all were found within a variety of resolution bandwidths, from 10 Hz up to 5 MHz, and down to a lower measurement limit which was set either by normal incoming signals or the noise figure of the analyzer; approximately -155dBm in a 10 Hz bandwidth. This measurement was also performed just after a solar coronal mass ejection when HF propagation changes had caused normal signals within the HF spectrum to be particularly weak or absent and thereby created an even more sensitive environment for measurements."

These results indicate there is no reason for the FCC to allow high frequency based broadband over power line systems when an alternative exists that offers greater bandwidth and no threat to existing HF, VHF and UHF spectrum users. Users of the 2 to 20 GHz spectrum may have some concerns and these should be addressed, but if G-line technology or a later refinement of it is being used, as appears likely, there should be little radiation from the power lines.

<http://www.tvtechnology.com/dlrf/one.php?id=259>

UN-ZIP THOSE ZIP FILES

by John, VE1CDD

These days with all the transferring of files a program that compress or un-compress files is essential. There are many different compression methods, so a program that can handle a large variety of formats is necessary.

WinZip is widely used but you have to put up with the nag screen or buy the registered version. Here is a FREE (love that word) program that has all the capability of WinZip without the nag screen or cost. I have been using it for close to a year without any problems. It is called Izarc and can be downloaded at <http://www.izsoft.dir.bg/>. (approx. 3 Meg)

A new feature of the program, one which I have not tried, is adding your own skin. Customizing the look of the program is referred to as changing the skin. This enables you to select your own colour scheme, icon and placement of buttons. All of the functions of the program remain the same. The author of Izarc is also offering a program that allows you to design your own skin.

MS Bike Tour 2003 By Rick Gardiner, VE1RGG

They say "No news is good news?" Well maybe not... and how about late news?

The good news is that the 2003 Bike Tour raised over \$341,000 which is an increase of \$16,000 over last year! This was achieved with about 440 cyclists with an average amount raised of \$775 per cyclist, also an increase over last years' figure of \$765.

There were about 75 volunteers in all helping with the event this year and about 20 of those were HAM operators! WOW! This is great participation by the HAM community and way too many people to list by name this year. I would like to mention two individuals in particular who received "Lifer Awards": Brenda Green, VE1PA and Bernie Marshall, VE1WGS for their decade long span of service with the Bike Tour. Thank you for your very long dedication to this event!

We tried a few new things this year which didn't have great success. We linked repeaters so we could hear what was going on over the entire route. This may have worked in the days when we had only 8 or 9 HAM operators but this year we had 20 and the result was way too much communication and chatter. I think we will go back to changing frequencies again. The other thing we tried was placing APRS equipment in 7 of the key vehicles. The plan was to help us track the critical service vehicles with an added benefit of projecting the activity on the wall at the finish line. Unfortunately Dave & Sherry George (VE1AJP & VE1WST+) had an extremely boring afternoon. The APRS signals were not getting through for a variety of reasons which we can try to improve on for next year. Instead of demonstrating a very active day Dave & Sherry had reports of vehicles moving every hour or so.

The Bike Tour went well overall and all had a great time (except maybe Dave & Sherry). There were the usual tire blow outs and a few injuries which needed attention and heat exhaustion caused a few riders to withdraw from finishing.

Now for the bad news...

My lines of communication to the MS Society have been cut off. Three of the MS Staff members that I have worked with on the Bike Tour Planning Committee over the years have left the MS Society. (This is my excuse for the late news.) Sylvie VE1CCS & Nadine VE1MSN along with their assistant Andrea have all moved on to other careers. Sylvie joined the MS Society in 1993 and started working with the Bike Tour the same year that HARC became involved. She was always easy to find in the crowd with her long red hair. (We later had to give her a HAM radio to find her when she shortened her hair.) Nadine joined a few years later and Andrea more recently. I have had a great time working with them over the years and will miss the team spirit that we all had.

Amateur Radio on the International Space Station

(ARISS) project. This program enables children to contact the Space Station and talk with the astronauts.



VE1ZP's tower ... after Juan



'Twas the month after Christmas and all
through the house,
Nothing would fit me, not even a blouse.

The cookies I'd nibbled, the eggnog I would taste,
At the holiday parties had gone to my waist.

When I got on the scales there arose such a number,
When I walked to the store it was less a walk than a lumber.

I remembered the marvelous meals I'd prepared,
The gravies and sauces and beef nicely rare.

The wine and the rum balls, the bread and the cheese
And the way I had never said "None for me, please".

As I dressed myself in my husband's old shirt
And prepared once again to do battle with dirt,

I said to myself as only I can,
"You can't spend another winter disguised as a man!"

So away with the last of the sour cream dip,
Get rid of the fruit cake, every cracker and chip.

Every last bit of food that I like must be banished,
Till all the additional ounces have vanished.

I won't have a cookie, not even a lick,
I'll only chew on long celery sticks.

I won't have hot biscuits, or corn bread or pie,
I'll munch on a carrot and quietly cry.

I'm hungry, I'm lonesome, and life is a bore,
But isn't that what January is for?

Unable to giggle, life's no longer a riot,
Happy New Year to all and to all a good diet.



From the ARRL Letter, Vol. 22, No. 48
December 5, 2003

The **Europa Island DXpedition** team operating as **TO4WW**, which took part in the CQ World Wide DX Contest (CW) the weekend of Nov. 29-30 put some 5,000,000 points (and 4000 QSOs) in the log. DXpedition Co-organizer Rafik Djandji, F5CQ, reports that protected **sea turtles** have been a nuisance for the TO4E operation. Lowband antennas are installed on the beach. Each night, the turtles knock them over and destroy the radials on their way from the ocean to the top of the beach to rest during the night. The team must repair & reinstall the antenna systems on a daily basis. The Clipperton DX Club is sponsoring the Europa operation. For more information see the Europa 2003 DXpedition Web site

<http://europa2003.free.fr/>

— the Daily DX

Check out the Daily DX web site

<http://www.dailydx.com>

From the ARRL Letter, Vol. 22, No. 43

High Frequency Active Auroral Research Project (HAARP):

Technical Specialist Richard Lampe, KL1DA, represented the ARRL at the 2003 HAARP RFI meeting Sept. 24 at the HAARP site near Gakona, Alaska. "Joint funding will allow HAARP to increase from its current 960 kW output to 3.6 MW," Lampe says. "When completed in 2006, HAARP will then be the premier ionospheric research facility with beam-steering capabilities that other similar arrays worldwide don't have." Under terms of its experimental license, HAARP must transmit on a non-interference basis. The staff at the control center immediately shut down the transmitters when harmonics were detected on 75/80 meters during experiments last year. "Alaska hams monitor the bands and aid HAARP engineers by reporting RFI issues as soon as they happen".

<http://www.haarp.alaska.edu>

From the ARRL Letter, Vol. 22, No. 44
If you made a QSO with the South Africans Launch Telescope Special Event station Nov 21-23, call sign ZS1SALT ("South African Large Telescope). A special QSL card will be sent to all amateurs who made contact and send direct QSL cards. Cards should be sent to Bolland ARC, PO Box 273, STRAND, 7140, Republic of South Africa. For additional information on the project, please visit the Web site www.salt.ac.za, as well as the Bolland Amateur Radio Club website at www.qsl.net/zs1bak.

Living on Earth is expensive, but it does include a free trip around the sun every year.

From the ARRL Letter, Vol. 22, No. 46
MORSE REQUIREMENT

The Australian Communications Authority (ACA) has announce it's dropping Morse code testing as a licensing requirement Jan. 1, 2004, and will make interim rule-changes to allow immediate access to privileges previously available only to those satisfying the Morse proficiency requirements.

The Wireless Association of Australia <<http://www.wia.org.au>> says dropping the Morse requirement will mean no changes in existing licenses or call signs. For more information see the ACA Web site <<http://www.aca.gov.au/>> (Click on "Review of Amateur Service Regulation.")

Ireland, Switzerland, Belgium, the UK, Germany, Norway, the Netherlands, Austria, New Zealand, Luxembourg, Singapore and Papua-New Guinea have already dropped their Amateur Radio Morse testing requirements or have announced an intention to do so.

Radio Amateurs of Canada asked Industry Canada to drop the Morse requirement at the 21st Industry Canada-Radio Amateurs of Canada Amateur Radio Advisory Board meeting October 23 in Ottawa.

P5-A ground station receives ESA's MARS-EXPRESS Probe

The European MARS EXPRESS probe arrived on Mars on Christmas Day and deployed the lander BEAGLE toward the Mars surface.

Joint preparations by the IUZ and the AMSAT-DL for this event started months ago, because the 20 metre parabolic antenna is also deemed to be used as ground station for the AMSAT-DL future P5-A Mars Mission.

On Sunday, Nov. 16, Germany saw a first ever event when a strong (40dB/Hz) 8.4 GHz signal of the MARS EXPRESS (at that moment 102 million kilometer distant) was directly received at Bochum over a number of hours.

It was the first time ever that a signal of an interplanetary deep space probe was received in Germany. It was probably also the first time ever that such a signal was received by amateur radio operators.

With this successful test the general functional and operational readiness of the 20 metre parabolic antenna in Bochum to serve as AMSAT-DL command station for the P5A Mars Mission was proven. It will then be used to navigate the P5-A Satellite in 2007 safely towards Mars and to enter a Mars orbit.

The complete report is here:

<http://www.amsat-dl.org/p5a/p5a-bochum-eng.htm>

73s Peter Guelzow, DB2OS
<peter.guelzow@kourou.de>
President AMSAT-DL
<http://www.amsat-dl.org/>

Courtesy of Wayne, VE!WPH

Birds of a feather flock together and crap on your car.



Answer to puzzler on page 2

Oldest known active ham

Answer: Tex Burdick, W5BQU, who was licensed in 1930, is the oldest known active ham at 103 years of age.. He can be heard regularly on 15 Meters.

RAC Bulletin 03-034E - **Canadian Amateurs may lose part of the 220 MHz band**

After studying the spectrum needs of various services over the past 18 months, the Radio Advisory Board of Canada (RABC) has decided to recommend to Industry Canada that the 220-222 MHz band be transferred from the amateur to the mobile service.

The RABC also recommends that:

- Amateur repeaters in this portion of the band be grandfathered to continue operation for a number of years, with the number to be decided by Industry Canada.

- A section of 150 kHz of spectrum in the 220-222 MHz band be designated as public service spectrum to be shared by amateur and mobile services for special public safety and disaster communications applications.

- The band 219-220 MHz is allocated on a secondary basis to the Amateur service in Canada, which would be in harmony with a similar allocation in the USA.

- The band from 222-225 MHz remains as a primary exclusive amateur allocation.

Following consultation with Canadian amateurs in a survey conducted in July 2002 RAC, as a member of the RABC, has vigorously opposed these proposed changes without success.

Industry Canada must now take this advice, together with input from RAC, decide on a course of action, and in all likelihood conduct a public consultation before issuing a decision. The prospects do not look good. For the full story, visit the RAC web site at

<http://www.rac.ca/news/canada.htm>

For more information, please read TCA and/or QST. (RAC does not necessarily endorse, support or vouch for the accuracy of the information provided there.)

Comments to: rachq@rac.ca

RAC 2004-2005 executive officers

President – Daniel Lamoureux,
VE2KA

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Hugh Clark, VE9HC,

Atlantic Director - David Nimmo,

VE1NN

From the ARRL Letter, Vol. 22, # 48,
4L4FN active from Angola:

Ed Giorgadze, 4L4FN, who made ham radio history with his P5/4L4FN operation from North Korea now is active from Angola as D2PFN on RTTY & SSB. QSL manager for D2PFN and P5/4L4FN is Bruce Paige, KK5DO. More information and an on-line log will be available on Paige's Web site

[<http://www.amsatnet.com>](http://www.amsatnet.com)

click on D2 Angola

The ARRL Letter, Vol. 22, No. 46

US National Radio Emergency Network (NREN)

<http://www.aa8vs.org/nren/>
a cooperative effort of several US CW net managers, NREN hopes to provide an alternative public service network geared to low-power, portable and mobile stations. "Because CW provides significantly more reliability for stations operating at low power levels (QRP) or with compromise antennas, this will be a **CW-based program**," said an announcement from Chuck Mabbott, AA8VS. NREN will work on the "radio watch" principle, and member stations will maintain a watch on one or more of three selected frequencies in the 40, 30, and 20-meter bands. A detailed description of NREN, along standard operating procedures is available on the NREN Web page

<http://www.aa8vs.org/nren/>

The ARRL Letter, Vol. 22, No. 45
November 14, 2003

USA – Spectrum Protection

Amateur Radio Spectrum Protection Act, HR 713 is important to the future of Amateur Radio. R-ID, the Spectrum Protection Act would require the FCC to provide "equivalent replacement spectrum" to Amateur Radio if the FCC reallocates primary amateur frequencies, reduces any secondary amateur allocations, or makes additional allocations within such bands that would substantially reduce their utility to amateurs.

From the ARRL Letter, Vol. 22, # 45

GATHERING FOR COMMUNICATIONS PROFESSIONALS

The interference potential of **Broadband over Power Line (BPL)** to over-the-air radio services was the topic of an ARRL-sponsored meeting of 25 communications professionals Nov. 7, 2003. The **National Association of Broadcasters** hosted the gathering at its headquarters in Washington, DC.

During the meeting, representatives from the shortwave broadcasting, public safety, aeronautical and scientific communities joined amateur and amateur-satellite representatives to discuss the threat of BPL and possible avenues to combat its interference potential to licensed HF and low-VHF spectrum users. Military and consumer electronics representatives participated as observers. Chip Margelli, K7JA, attended on behalf of the Yaesu Amateur Division of Vertex-Standard.

A number of non-amateur organizations support ARRL's position on BPL. Representing the National Association of Shortwave Broadcasters, George Jacobs, W3ASK, affirmed their strong support for the ARRL position.

Meeting attendees cited numerous & increasing instances of interference from Part 15 devices. Some attendees indicated a willingness to accompany ARRL representatives to meetings with federal officials to underscore that concerns about BPL are not confined to radio amateurs.

NASA Science News for Nov. 10/03

Passed along by Wayne, VE1WPH

When it's time to fix things in space, what tool do astronauts reach for first? Often it's a soldering iron--the same tool we use on Earth. The solder is the same too, only it behaves differently onboard a spaceship. A new experiment planned for the International Space Station will explore the unfamiliar physics of molten solder in low gravity.

FULL STORY at

http://science.nasa.gov/headlines/y2003/10nov_solder.htm?list969122

From NASA Science News

Author: Patrick L. Barry

The Science Directorate at NASA's Marshall Space Flight Center sponsors the Science@NASA web sites. The mission of Science@NASA is to help the public understand how exciting NASA research is and to help NASA scientists fulfill their outreach responsibilities. Even on the advanced spacecraft of the future, sooner or later things are bound to break. Space travelers on an extended mission to Mars, for example, would need to be ready to do small repairs just in case, soldering this, welding that.

In the unforgiving environment of space, a successful solder-repair to, say, navigation hardware or an oxygen pump could mean the difference between life and death.

"Surprisingly, relatively little is known about the unique physics of soldering in microgravity," says Richard Grugel, a scientist at NASA's Marshall Space Flight Center who specializes in the solidification of metals.

Grugel and his colleagues Fay Hua of Intel Corporation and A.V. Anilkumar of Vanderbilt University have planned an experiment for the International Space Station called the "In Space Soldering Investigation" (ISSI). They hope the experiment will shed new light on the physics

of soldering and, in the process, make the soldering iron a more reliable tool for astronauts.

Melted solder behaves differently in space. In the microgravity aboard a spacecraft, molten solder doesn't "feel" a downward pull as it does on Earth, so surface tension becomes more prominent and causes blobs of liquid solder to flow differently. In other words, soldering techniques that work on the ground may not form proper joints in orbit.

Even worse, those soldered joints could be much weaker in orbit. Gas bubbles in the molten solder that often rise to the surface and disappear on Earth can remain suspended within the liquid in orbit. That's because the pull of gravity is the force behind buoyancy, so in microgravity bubbles don't necessarily rise. These tiny bubbles become trapped within the solder as it solidifies, making the joint less effective and more prone to breakage--not a good thing when you're in the mission-critical environment of space!

"How prevalent are these gas bubbles in joints soldered in space? We need to find out, and perhaps find some way to get those gas bubbles out so that we can make good joints that won't break," Grugel says.

The experiment is straightforward: metal wires will be soldered together in various arrangements, reflecting common geometries important for making repairs. Space station crewmembers will use a soldering iron to join these wires with lead-tin solder.

While the shuttle fleet is grounded, room for sending research equipment and materials up to the space station is severely limited. The ISSI experiment was selected in part because it requires no "up-mass" sent to the station from the ground. The space station already has a soldering kit onboard and coils of silver-coated copper wire.

The Expedition 7 crew, which re-

cently returned to Earth, fashioned the wire into L-shapes, loops, parallel threads, and other shapes in preparation for the experiment. The researchers plan to have the current space station crew (Expedition 8) perform the experiment during their stay, which is scheduled to last until April 2004.

While the experiment happens, the researchers will be able to watch it unfold live at NASA's Telescience Center at the Marshall Space Flight Center in Huntsville, Alabama. They'll be watching to see the differences in how the solder flows and the shapes it assumes in space, which will offer clues to the fundamental physics of molten solder.

If they see something unexpected, the live interaction will allow them to suggest procedure changes to the station crew members in real-time. After the samples are returned to Earth, the scientists will cut open the joints to see how many gas bubbles were trapped during the process, and they'll test how strong the joints are.

"We should be able to gain a window into how surface tension effects soldering in microgravity," Grugel says. "This will help lay a foundation for the future of in-space fabrication and repair."

Industry is currently moving away from lead-tin solder because of lead's negative health effects, but as it does it's also losing much of the 50 years of experience it has with lead-based solders.

"A better theoretical understanding of the physics of molten solder will help close the book on lead-based solder as well as open the door for industry's newer work with lead-free solders," Grugel says. "Microgravity research is a good way to explore that physics."

Home page <http://science.nasa.gov>

*God may have created man before
woman but there is always a rough
draft before the masterpiece.*